INCH POUND
MIL-PRF-3098/55E
27 August 1997
SUPERSEDING
MIL-C-3098/55D
10 April 1995

PERFORMANCE SPECIFICATION SHEET

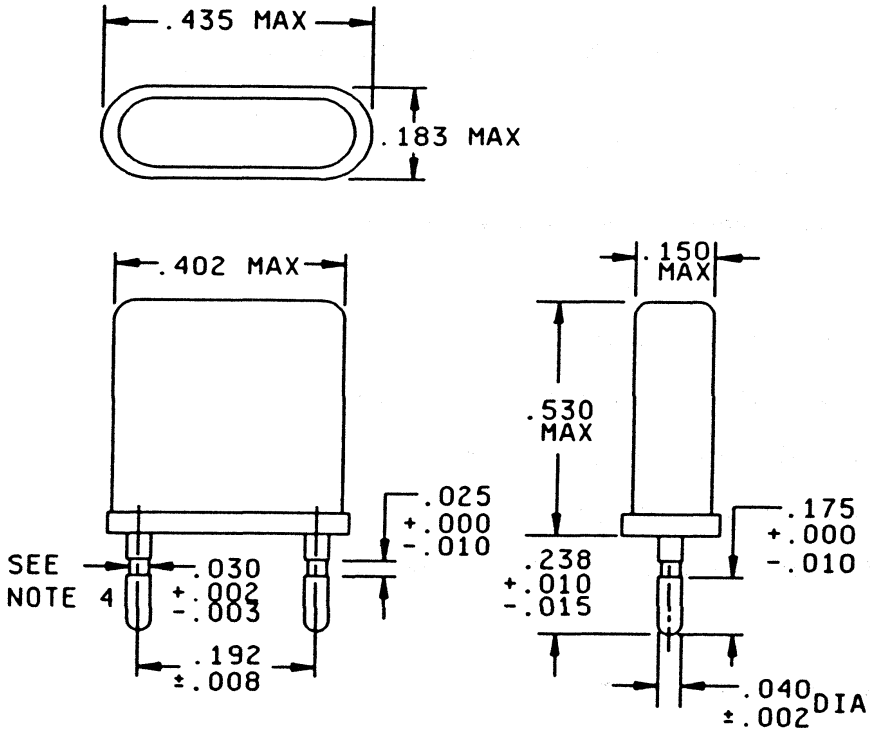
CRYSTAL UNIT, QUARTZ, CR77/U

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-3098.

Pertinent characteristics: 17 MHz to 62 MHz; third mechanical overtone; noncontrolled; series resonance.

Inches	mm
.002	.05
.003	.08
.008	.20
.010	.25
.015	.38
.025	.64
.030	.76
.040	1.02
.150	3.81
.175	4.45
.183	4.65
.192	4.88
.238	6.05
.435	1.05
.530	13.34



NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking to be in accordance with MIL-PRF-3098.
4. The pin undercut may be omitted.

FIGURE 1. Crystal unit - CR77/U.

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 17.0 MHz to 62.0 MHz, inclusive.

Capacitance, shunt: 7 pF, maximum.

Frequency tolerances:

Primary operating temperature range: ±20 parts per million (ppm).

Secondary operating temperature range: ±30 ppm.

Equivalent resistance: 40 ohms, maximum.

Mode of oscillation: Third mechanical overtone.

Drive level, rated: 1.0 mW maximum.

Resonance: Series.

Operating temperature ranges:

Primary: -40°C to +90°C, inclusive.

Secondary: -55°C to -40°C, and +90°C to +105°C, inclusive.

Shock (specified pulse):

Frequency change permitted: ±5 ppm.

Equivalent resistance change permitted: ±10 percent.

Thermal shock:

Frequency change permitted: ±5 ppm.

Equivalent resistance change permitted: ±10 percent.

Vibration: Method 204 of MIL-STD-202, test condition A.

Frequency change permitted: ±5 ppm.

Equivalent resistance change permitted: ±10 percent.

Aging:

Frequency change permitted: ±5 ppm.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - EC
Air force - 85

Review activities:
Army - AR, MI
Navy - AS, MC, SH
Air Force - 17, 19

Preparing activity:
Army - CR

Agent:
DLA - CC

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